



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,270	03/12/2007	Walter Reith	22964-014US1	6581
26167 7590 02/06/2009 FISH & RICHARDSON P.C. P.O BOX 1022 Minneapolis, MN 55440-1022				
EXAMINER				
SCOTT, ANGELA C				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
02/06/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

### Office Action Summary

**Application No.**

10/579,270

**Applicant(s)**

REITH, WALTER

**Examiner**

Angela C. Scott

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 29-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)
- Paper No(s)/Mail Date 12/08
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Applicant's response of December 24, 2008 has been fully considered. Claims 5, 7-9, and 21 have been amended and claims 1-26 and 29-32 are pending.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777). The citations below are taken from the English language equivalent publication, US 2003/0209696.

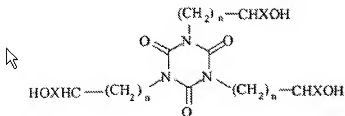
Regarding claims 1-3 and 5, Reith et al. teach a stabilizer composition for halogen-containing thermoplastic resins, the stabilizer composition comprising (§10) from 0.1 to 5 parts by weight, preferably from 0.2 to 2 phr, based on the halogen-containing resin (§13) of calcium hydroxide and/or calcium oxide (§11) (component "a"), 0.1 to 3 parts by weight, preferably from 0.2 to 1 phr, based on the halogen-containing resin (§14) of a hydroxyl group-containing isocyanurate (§12) (component "b"), and a linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30), specifically benzoyl stearoyl methane and calcium acetyl acetonate (Tables for Example A and Example B) (component "c"). The benzoyl stearoyl methane is contained in an amount of 0.2 parts by weight based on the halogen-containing resin and the calcium acetyl acetonate in an amount of 0.3 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Reith et al. do not teach that component c is present in an amount less than 0.3 phr. However, generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed

in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP §2144.05. In this case, the examples disclose component c present in an amount of 0.5 phr. This amount of component c is sufficiently close to 0.3 phr and it is well known in the art to optimize result effective variables, such as concentration of additives. At the time of the invention, a person of ordinary skill in the art would have found it obvious to optimize the amount of beta-diketone through routine experimentation and would have been motivated to do so in order to balance its stabilizing effect with the other components of the composition.

Regarding claim 4, while the examples in Reith et al. teach from 0.33 to 1.2 phr of component a and from 0.3 to 0.4 phr of component b, a reference is available for all that it teaches, not simply the preferred embodiments. Moreover, where the claimed ranges “overlap or lie inside ranges disclosed by the prior art,” as is the case here, a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

Regarding claim 29, Reith et al. additionally teaches that the hydroxyl group-containing isocyanurate is preferably selected from compounds represented by the general formula



wherein groups X and indices n are respectively the same or different and n is an integer of 0 to 5 and X is a hydrogen atom or a straight-chain or branched alkyl group having 1 to 6 carbon atoms (¶15-16).

Regarding claim 30, Reith et al. additionally teaches that the composition further comprises hydrotalcites (¶31).

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 1 above, and further in view of Adams et al. (US 2003/0158311).

Reith et al. teach the basic composition of claim 1. Reith et al. do not teach that the composition further contains a mixture of zinc stearate and at least one organic zinc carboxylate. However, Adams et al. does teach the use of zinc carboxylates, such as zinc stearate, zinc octanoate, zinc palmitate and zinc laurate, in a stabilizer composition (§75). It also teaches that mixtures of these carboxylates are useful too (§75). Reith et al. and Adams et al. are analogous art because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing thermoplastic resins. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a mixture of zinc carboxylates, as taught by Adams et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because they can be used as easily incorporated lubricants for the composition.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 1 above, and further in view of Fokken et al. (WO 02/098964). The citations below for Fokken et al. are taken from US 2004/0138354, an English language equivalent.

Reith et al. teach the basic composition of claim 1. Reith et al. do not teach that the composition further contains a triglyceride. However, Fokken et al. does teach adding a triglyceride to the stabilizer composition (§101). Reith et al. and Fokken et al. are analogous art because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing polymers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a triglyceride, as taught by Fokken et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because the triglyceride can be used as an easily incorporated lubricant for the composition.

Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777). The citations below are taken from the English language equivalent publication, US 2003/0209696.

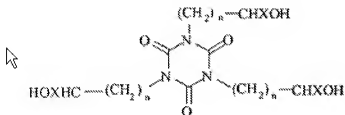
Regarding claims 6-7 and 9, Reith et al. teach a stabilizer composition for halogen-containing thermoplastic resins, the stabilizer composition comprising (§10) from 0.1 to 5 parts by weight, preferably from 0.2 to 2 phr, based on the halogen-containing resin (§13) of calcium

hydroxide and/or calcium oxide (§11) (component “a”), 0.1 to 3 parts by weight, preferably from 0.2 to 1 phr, based on the halogen-containing resin (§14) of a hydroxyl group-containing isocyanurate (§12) (component “b”), and a linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30), specifically benzoyl stearoyl methane and calcium acetyl acetate (Tables for Example A and Example B) (component “c”). The benzoyl stearoyl methane is contained in an amount of 0.2 parts by weight based on the halogen-containing resin and the calcium acetyl acetate in an amount of 0.3 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B). By these parts by weight, component (a) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition and component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Reith et al. do not teach that component c is present in an amount less than 0.3 phr (i.e., an amount less than 1.728% by weight). However, generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP §2144.05. In this case, the examples disclose component c present in an amount of 0.5 phr. This amount of component c is sufficiently close to 0.3 phr and it is well known in the art to optimize result effective variables, such as concentration of additives. At the time of the invention, a person of ordinary skill in the art would have found it obvious to optimize the amount of beta-diketone through routine experimentation and would have been motivated to do so in order to balance its stabilizing effect with the other components of the composition.

Regarding claim 8, while the examples in Reith et al. teach from 0.33 to 1.2 phr of component a and from 0.3 to 0.4 phr of component b, a reference is available for all that it teaches, not simply the preferred embodiments. Moreover, where the claimed ranges “overlap or lie inside ranges disclosed by the prior art,” as is the case here, a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

Regarding claim 10, Reith et al. additionally teaches that the hydroxyl group-containing isocyanurate is preferably selected from compounds represented by the general formula



wherein groups X and indices n are respectively the same or different and n is an integer of 0 to 5 and X is a hydrogen atom or a straight-chain or branched alkyl group having 1 to 6 carbon atoms (§15-16).

Regarding claim 11, Reith et al. additionally teaches that the composition further comprises hydrotalcites (§31).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 6 above, and further in view of Adams et al. (US 2003/0158311).

Reith et al. teach the basic composition of claim 6. Reith et al. do not teach that the composition further contains a mixture of zinc stearate and at least one organic zinc carboxylate. However, Adams et al. does teach the use of zinc carboxylates, such as zinc stearate, zinc octanoate, zinc palmitate and zinc laurate, in a stabilizer composition (§75). It also teaches that mixtures of these carboxylates are useful too (§75). Reith et al. and Adams et al. are analogous art because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing thermoplastic resins. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a mixture of zinc carboxylates, as taught by Adams et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because they can be used as easily incorporated lubricants for the composition.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 6 above, and further in view of Fokken et al. (WO 02/098964). The citations below for Fokken et al. are taken from US 2004/0138354, an English language equivalent.

Reith et al. teach the basic composition of claim 6. Reith et al. do not teach that the composition further contains a triglyceride. However, Fokken et al. does teach adding a triglyceride to the stabilizer composition (§101). Reith et al. and Fokken et al. are analogous art because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing polymers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a triglyceride, as taught by Fokken et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because the triglyceride can be used as an easily incorporated lubricant for the composition.

Claims 14-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777). The citations below are taken from the English language equivalent publication, US 2003/0209696.

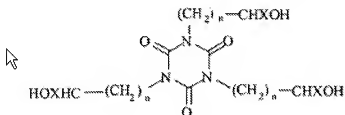
Regarding claims 14-16 and 21, Reith et al. teach a polymer composition comprising a halogen-containing thermoplastic resin (PVC) (Tables for Example A and Example B) and a stabilizer composition for halogen-containing thermoplastic resins, the stabilizer composition comprising (§10) from 0.1 to 5 parts by weight, preferably from 0.2 to 2 phr, based on the halogen-containing resin (§13) of calcium hydroxide and/or calcium oxide (§11) (component "a"), 0.1 to 3 parts by weight, preferably from 0.2 to 1 phr, based on the halogen-containing resin (§14) of a hydroxyl group-containing isocyanurate (§12) (component "b"), and a linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30), specifically benzoyl stearoyl methane and calcium acetyl acetonate (Tables for Example A and Example B) (component "c"). The benzoyl stearoyl methane is contained in an amount of 0.2 parts by weight based on the halogen-containing resin and the calcium acetyl acetonate in an amount of 0.3 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Reith et al. do not teach that component c is present in an amount less than 0.3 phr. However, generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed



in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP §2144.05. In this case, the examples disclose component c present in an amount of 0.5 phr. This amount of component c is sufficiently close to 0.3 phr and it is well known in the art to optimize result effective variables, such as concentration of additives. At the time of the invention, a person of ordinary skill in the art would have found it obvious to optimize the amount of beta-diketone through routine experimentation and would have been motivated to do so in order to balance its stabilizing effect with the other components of the composition.

Regarding claim 17, Reith et al. additionally teaches that the hydroxyl group-containing isocyanurate is preferably selected from compounds represented by the general formula



wherein groups X and indices n are respectively the same or different and n is an integer of 0 to 5 and X is a hydrogen atom or a straight-chain or branched alkyl group having 1 to 6 carbon atoms (§15-16).

Regarding claim 18, while the examples in Reith et al. teach from 0.33 to 1.2 phr of component a and from 0.3 to 0.4 phr of component b, a reference is available for all that it teaches, not simply the preferred embodiments. Moreover, where the claimed ranges “overlap or lie inside ranges disclosed by the prior art,” as is the case here, a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

Regarding claim 19, Reith et al. additionally teaches that the composition further comprises hydrotalcites (§31).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 14 above, and further in view of Adams et al. (US 2003/0158311).

Reith et al. teach the basic composition of claim 14. Reith et al. do not teach that the composition further contains a mixture of zinc stearate and at least one organic zinc carboxylate. However, Adams et al. does teach the use of zinc carboxylates, such as zinc stearate, zinc octanoate, zinc palmitate and zinc laurate, in a stabilizer composition (§75). It also teaches that mixtures of these carboxylates are useful too (§75). Reith et al. and Adams et al. are analogous art because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing thermoplastic resins. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a mixture of zinc carboxylates, as taught by Adams et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because they can be used as easily incorporated lubricants for the composition.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 14 above, and further in view of Fokken et al. (WO 02/098964). The citations below for Fokken et al. are taken from US 2004/0138354, an English language equivalent.

Reith et al. teach the basic composition of claim 14. Reith et al. do not teach that the composition further contains a triglyceride. However, Fokken et al. does teach adding a triglyceride to the stabilizer composition (§101). Reith et al. and Fokken et al. are analogous art because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing polymers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a triglyceride, as taught by Fokken et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because the triglyceride can be used as an easily incorporated lubricant for the composition.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777). The citations below are taken from the English language equivalent publication, US 2003/0209696.

Reith et al. teach preparing a stabilizer composition for halogen-containing thermoplastic resins, the stabilizer composition comprising (§10) by mixing together (§44) from 0.1 to 5 parts by weight, preferably from 0.2 to 2 phr, based on the halogen-containing resin (§13) of calcium

hydroxide and/or calcium oxide (¶11) (component "a"), 0.1 to 3 parts by weight, preferably from 0.2 to 1 phr, based on the halogen-containing resin (¶14) of a hydroxyl group-containing isocyanurate (¶12) (component "b"), and a linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (¶30), specifically benzoyl stearoyl methane and calcium acetyl acetate (Tables for Example A and Example B) (component "c"). The benzoyl stearoyl methane is contained in an amount of 0.2 parts by weight based on the halogen-containing resin and the calcium acetyl acetate in an amount of 0.3 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Reith et al. do not teach that component c is present in an amount less than 0.3 phr. However, generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP §2144.05. In this case, the examples disclose component c present in an amount of 0.5 phr. This amount of component c is sufficiently close to 0.3 phr and it is well known in the art to optimize result effective variables, such as concentration of additives. At the time of the invention, a person of ordinary skill in the art would have found it obvious to optimize the amount of beta-diketone through routine experimentation and would have been motivated to do so in order to balance its stabilizing effect with the other components of the composition.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777). The citations below are taken from the English language equivalent publication, US 2003/0209696.

Reith et al. teach preparing a stabilizer composition for halogen-containing thermoplastic resins, the stabilizer composition comprising (¶10) by mixing together (¶44) from 0.1 to 5 parts by weight, preferably from 0.2 to 2 phr, based on the halogen-containing resin (¶13) of calcium hydroxide and/or calcium oxide (¶11) (component "a"), 0.1 to 3 parts by weight, preferably from 0.2 to 1 phr, based on the halogen-containing resin (¶14) of a hydroxyl group-containing

isocyanurate (§12) (component “b”), and a linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30), specifically benzoyl stearoyl methane and calcium acetyl acetonate (Tables for Example A and Example B) (component “c”). The benzoyl stearoyl methane is contained in an amount of 0.2 parts by weight based on the halogen-containing resin and the calcium acetyl acetonate in an amount of 0.3 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Reith et al. do not teach that component c is present in an amount less than 0.3 phr (i.e., an amount less than 1.728% by weight). However, generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP §2144.05. In this case, the examples disclose component c present in an amount of 0.5 phr. This amount of component c is sufficiently close to 0.3 phr and it is well known in the art to optimize result effective variables, such as concentration of additives. At the time of the invention, a person of ordinary skill in the art would have found it obvious to optimize the amount of beta-diketone through routine experimentation and would have been motivated to do so in order to balance its stabilizing effect with the other components of the composition.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777). The citations below are taken from the English language equivalent publication, US 2003/0209696.

Reith et al. teaches a polymer composition prepared by mixing (§44) a halogen-containing thermoplastic resin (PVC) (Tables for Example A and Example B) and a stabilizer composition comprising (§10) from 0.1 to 5 parts by weight, preferably from 0.2 to 2 phr, based on the halogen-containing resin (§13) of calcium hydroxide and/or calcium oxide (§11) (component “a”), 0.1 to 3 parts by weight, preferably from 0.2 to 1 phr, based on the halogen-containing resin (§14) of a hydroxyl group-containing isocyanurate (§12) (component “b”), and a

linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§130), specifically benzoyl stearoyl methane and calcium acetyl acetate (Tables for Example A and Example B) (component "c"). The benzoyl stearoyl methane is contained in an amount of 0.2 parts by weight based on the halogen-containing resin and the calcium acetyl acetate in an amount of 0.3 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Reith et al. do not teach that component c is present in an amount less than 0.3 phr. However, generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP §2144.05. In this case, the examples disclose component c present in an amount of 0.5 phr. This amount of component c is sufficiently close to 0.3 phr and it is well known in the art to optimize result effective variables, such as concentration of additives. At the time of the invention, a person of ordinary skill in the art would have found it obvious to optimize the amount of beta-diketone through routine experimentation and would have been motivated to do so in order to balance its stabilizing effect with the other components of the composition.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777). The citations below are taken from the English language equivalent publication, US 2003/0209696.

Reith et al. teaches a polymer composition prepared by mixing (§44) a halogen-containing thermoplastic resin (PVC) (Tables for Example A and Example B) and a stabilizer composition comprising (§10) from 0.1 to 5 parts by weight, preferably from 0.2 to 2 phr, based on the halogen-containing resin (§13) of calcium hydroxide and/or calcium oxide (§11) (component "a"), 0.1 to 3 parts by weight, preferably from 0.2 to 1 phr, based on the halogen-containing resin (§14) of a hydroxyl group-containing isocyanurate (§12) (component "b"), and a linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§130), specifically benzoyl stearoyl

methane and calcium acetyl acetonate (Tables for Example A and Example B) (component "c"). The benzoyl stearoyl methane is contained in an amount of 0.2 parts by weight based on the halogen-containing resin and the calcium acetyl acetonate in an amount of 0.3 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Reith et al. do not teach that component c is present in an amount less than 0.3 phr. However, generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP §2144.05. In this case, the examples disclose component c present in an amount of 0.5 phr. This amount of component c is sufficiently close to 0.3 phr and it is well known in the art to optimize result effective variables, such as concentration of additives. At the time of the invention, a person of ordinary skill in the art would have found it obvious to optimize the amount of beta-diketone through routine experimentation and would have been motivated to do so in order to balance its stabilizing effect with the other components of the composition.

### ***Response to Arguments***

Applicant's arguments, see pages 10-12, filed December 24, 2008, with respect to the rejection(s) of claim(s) 1-11, 14-19, 21, 23-26 and 29-30 under 35 U.S.C. §102(b) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made under 35 U.S.C. §103(a) over Reith et al. (WO 99/55777).

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela C. Scott whose telephone number is (571) 270-3303. The examiner can normally be reached on Monday through Friday, 8:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/  
Supervisory Patent Examiner, Art Unit 1796

/A. C. S./  
Examiner, Art Unit 1796